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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/507,185

09/10/2004

Yukihito Ichikawa

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05/30/2007

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EXAMINER

YOUNG, NATASHA E

ART UNIT

PAPER NUMBER

1709

MAIL DATE

DELIVERY MODE

05/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/507,185	Applicant(s) ICHIKAWA, YUKIHITO	
	Examiner Natasha Young	Art Unit 1709	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09/10/2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) 24-28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 15-28 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/10/2004, 02/11/2005</u> | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 15-23, drawn to a honeycomb structure.

Group 2, claim(s) 24-28, drawn to method of manufacturing a honeycomb structure.

The inventions listed as Groups 1 and 2 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: the groups do not share a special technical feature. The special technical feature of Group 1 relates to an outermost peripheral surface of the cell structural part characterized in that an outermost peripheral cell position in an outermost periphery of the cell structural part and a predetermined number of cells (outer peripheral cells) positioned in an inner direction from the outermost peripheral cell among the cells are sealed by an inner peripheral surface on the outer wall in an end portion and/or an intermediate portion of at least one of the outermost peripheral cell and the outer peripheral cell in a central axis direction to form shielded cells which prevent the fluid from flowing. The claims of Group 2 do not include this special technical feature.

During a telephone conversation with Joe Lin on May 14, 2007 a provisional election was made with traverse to prosecute the invention of Group 1, claims 15-23. Affirmation of this election must be made by applicant in replying to this Office action. Claims 24-28 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 1709

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15-20, and 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Taguchi (JP 10-89056 A).

Regarding claim 15, the Taguchi reference teaches a honeycomb structure comprising: a cell structural part including a plurality of cells partitioned by partition walls in a honeycomb shape to form flow paths allowing a fluid to flow therein; and an outer wall disposed on an outer peripheral surface of the cell structural part, characterized in that an outermost peripheral cell positioned in an outermost periphery of the cell structural part and a predetermined number of cells (outer peripheral cells) positioned in an inner direction from the outermost peripheral cell among the cells are sealed by an inner peripheral surface of the outer wall in an end portion and/or an intermediate portion of at least one of the outermost peripheral cell and the outer peripheral cell in a central axis direction to form shielded cells which prevent the fluid from flowing (see Drawing 1 and paragraph 0017).

Regarding claim 16, the Taguchi reference teaches a honeycomb structure wherein a thickness of the shielded cell in a diametric direction of the honeycomb structure is 10% or less of an outer diameter of the honeycomb structure (see Drawing 1). From the drawing, it is shown that the shielded cell's diameter is 10% or less of the outer diameter of the honeycomb structure.

Claim 17 is dependent on claim 15 such that the same reasoning for rejecting claim 15 is used to reject the dependent part of the claim.

Regarding claim 17, the Taguchi reference teaches the honeycomb structure according to claim 15, wherein the cell structural part and the outer wall are constituted of ceramic materials (see Abstract and paragraph 0017).

Claim 18 is dependent on claim 15 such that the same reasoning for rejecting claim 15 is used to reject the dependent part of the claim.

Regarding claim 18, the Taguchi reference teaches the honeycomb structure according to claim 15, wherein the cell structural part and the outer wall are constituted of metal materials (see Abstract and paragraph 0017).

Claim 19 is dependent on claim 15 such that the same reasoning for rejecting claim 15 is used to reject the dependent part of the claim.

Regarding claim 19, the Taguchi reference teaches the honeycomb structure according to claim 15, wherein the cell structural part contains a material having an adsorption function or a catalyst function (see Abstract and paragraph 0017).

Claim 20 is dependent on claim 15 such that the same reasoning for rejecting claim 15 is used to reject the dependent part of the claim.

Regarding claim 20, the Taguchi reference teaches the honeycomb structure according to claim 15, wherein the outer wall is constituted of a heat-resistant material (see Abstract and paragraph 0017).

Regarding claim 22, the Taguchi reference teaches a catalyst body comprising a honeycomb structure comprising: a cell structural part including a plurality of cells partitioned by partition walls in a honeycomb shape to form flow paths allowing a fluid to flow therein; and an outer wall disposed on an outer peripheral surface of the cell structural part, wherein an outermost peripheral cell positioned in an outermost periphery of the cell structural part and a predetermined number of cells (outer peripheral cells) positioned in an inner direction from the outermost peripheral cell among the cells are sealed by an inner peripheral surface of the outer wall in an end portion and/or an intermediate portion of at least one of the outermost peripheral cell and the outer peripheral cell in a central axis direction to form shielded cells which prevent the fluid from flowing, the honeycomb structure supporting a catalyst inside the cells and/or inside the partition walls (see Drawing 1 and paragraphs 0017 and 0018).

Claim 23 is dependent on claim 22 such that the same reasoning for rejecting claim 22 is used to reject the dependent part of the claim.

Regarding claim 23, the Taguchi reference teaches the catalyst body according to claim 22, wherein the catalyst has a function of purifying an automobile exhaust gas (see paragraph 0001).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taguchi (JP 10089056 A) in view of Gadkawa et al (US 5,750,026).

Claim 21 is dependent on claim 15 such that the same reasoning for rejecting claim 15 is used to reject the dependent part of the claim.

Regarding claim 21, the Taguchi reference teaches the honeycomb structure according to claim 15, for use as a filter (see paragraph 0001).

The Taguchi reference does not teach the opposite end portions of the cells in the central axis direction are alternately plugged.

The Gadkawa et al reference teaches the opposite end portions of the cells in the central axis direction are alternately plugged (see Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the invention of Taguchi with the teachings of Gadkawa et al to because the plugging configuration allows more intimate contact between fluid or workstream medium and the activated carbon adsorbent, especially in the case of a liquid medium (see Gadkawa et al column 5, 2<sup>nd</sup> paragraph).



**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Natasha Young whose telephone number is 571-270-3163. The examiner can normally be reached on Mon-Thurs 7:30am-6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NY

  
**WALTER D. GRIFFIN**  
**SUPERVISORY PATENT EXAMINER**